

## ABSTRACT OF THE DISCLOSURE

An asynchronous transfer mode (ATM) exchange includes an ATM switch (120), an ATM line card (110), a server card (130), and an Ethernet line  
5 card (140). The server card (130) converts an ATM cell including connection data, into a network layer packet, extracts a network layer next hop out of the network layer packet, converts the network layer next hop into associated connection data, and converts the network layer packet and connection data into an ATM cell. The Ethernet line card (140) converts the ATM cell into a network layer packet,  
10 extracts the connection data out of the ATM cell, converts the connection data into a shared medium address, and converts the network layer packet and shared medium address into a shared medium frame.

(Drawing to be published: Fig. 5)